

## Nurse-led survey allows improvements in LASEK care

Stefanie Petrou Binder MD

A Swedish refractive surgical team found that they were able to offer improved pre- and postoperative care for laser epithelial keratomileusis (LASEK) patients based on research by nurses on the team.

"Today LASEK represents one third of Capio Medocular's annual laser treatments. Postoperative pain after LASEK treatment is well known, but few studies describe it. Thanks to the survey we have been able to continue to take measures to improve on the care we offer our LASEK patients. We provide them with more complete written information, have made a change on the prescription of artificial tears, and continue to follow postoperative patients by phone, as we did during the survey, because of the positive patient response it creates and the comfort we can offer our patients," said Petra Bondesson, a nurse working for Capio Medocular.

Mrs Bondesson conducted telephone interviews with LASEK patients on the day after surgery. The aim of the survey was to allow LASEK patients to describe and illustrate their postoperative pain and discomfort and allow the surgical staff to use the results to improve pre-operative patient information and postoperative pain relief. She spoke with 107 patients in all, of whom 48 were male and 59 were female. Fifty-four of the patients had LASEK for the first time, 29 had the operation on their second eye, and 24 patients underwent the procedure on both eyes at once. Mrs Bondesson spoke with 31 of the LASEK patients again one week after surgery.

She used the Visual Analogue Scale to measure patients' postoperative pain and discomfort levels. The scale is graded between 0-10, where zero represents no pain and 10 represents the maximum amount of pain. The average score was 2.8 one day after surgery. This level represents mild to moderate discomfort. Most of the patients experiencing postoperative discomfort took little or no painkillers the day after surgery, she said.

Mrs Bondesson explained that pain and discomfort were usually highest after surgery, scoring an average of VAS 7.2, when the effect of the anaesthetic wore off. This discomfort can last for a couple of hours, she said. Pain levels of 7.2 reflected severe pain/discomfort levels and were shared by both males and females in the group. The majority of these patients used analgesics and applied local anaesthetic eye drops for pain relief.

The number of pain occurrences when grouped by gender showed no significant differences in scores. The majority of those patients having surgery on their second eye, however, mentioned that the pain they experienced during the prior surgery on the first eye was worse than on the second eye, Mrs Bondesson pointed out.

During the interview, Mrs Bondesson asked each patient to describe the type of pain they experienced. The most frequent symptoms and descriptions of discomfort were: watery eyes in 71 per cent, a gritty feeling in 60 per cent, swollen eyelids in 52 per cent, ache/pain in 36 per cent, sensitivity to light in 33 per cent, a stinging feeling in 24 per cent, foreign-body feeling in 16 per cent, and irritation of the eye in six per cent of cases. The patients who underwent

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surgery on both eyes at once experienced the particular discomfort of near blindness on the day after surgery, due to the swollen eyelids of both eyes.

The results also highlighted the importance of providing patients with correct and complete patient information before surgery. When patients are well informed, it is much easier to manage postoperative pain and discomfort, Mrs Bondesson maintained. From the postoperative interview, she discovered that about 80 per cent of the LASEK patients considered themselves properly informed.

Patients who were not satisfied with the pre-operative information they received were chiefly the ones who were taken by surprise by the sometimes severe levels of postoperative pain. They would have appreciated if the risk of moderate to severe pain had been pointed out to them prior to surgery, Mrs Bondesson explained.

Most of the patients who were interviewed one week later admitted that the first two to four days after surgery could be quite uncomfortable. The majority stated, however,

that they now had no remaining discomfort. A few patients had some remaining dryness in the eye and were sensitive to light. They could go to work/drive roughly four days after surgery. Half of the patients were satisfied with their uncorrected visual acuity levels.

The survey offered the surgical team the opportunity to make some improvement in service. For instance, they updated the patient pamphlets to include more detail on the risk of the possibility of eyelid swelling, previously lacking in the pamphlet. The team included a prescription for artificial tears and the physicians added a painkiller tablet for immediately after surgery containing paracetamol and codeine, to lessen the pain that comes about when the anaesthetic wears off. They also introduced oxybuprocain local anaesthetic drops for fast pain relief.

At the end of the survey, the ophthalmic nursing team decided to continue to follow-up postoperative LASEK patients by phone, one day following surgery, as the patient response had been overwhelmingly positive during the survey.

"They were very grateful and felt very comforted by the postoperative contact," Mrs Bondesson noted.

[Petra.bondesson@medocular.se](mailto:Petra.bondesson@medocular.se)



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